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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,337	12/15/2004	Richard A. Ales	22188/06938	6750

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EXAMINER

CHAPMAN JR, JOHN E

ART UNIT PAPER NUMBER

2856

DATE MAILED: 10/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/518,337		ALES ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	John E. Chapman		2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 October 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-65 is/are pending in the application.
- 4a) Of the above claim(s) 2-4 and 26-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 5-22, 25 and 43-65 is/are rejected.
- 7) ☒ Claim(s) 23 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/21/05</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Applicant's election without traverse of the invention of Group I and the species of Fig. 2 in the reply filed on October 2, 2006 is acknowledged. Claims 26-42 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Claims 2-4 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim.

2. The information disclosure statement filed March 21, 2005 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because each publication listed in an information disclosure statement must be identified by publisher, author (if any), title, relevant pages of the publication, date, and place of publication (37 CFR 1.98(b)(5)). It has been placed in the application file, but not all the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

3. The references cited in the Search Report of PCT/US03/19133 have been considered.

4. The disclosure is objected to because of the following informalities:

Page 16, line 9, "Feature 4" is unclear.

Page 16, line 13, "Feature 8" is unclear.

Appropriate correction is required.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 7-9, 14-17 and 43-65 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 is vague and indefinite. A correlation is a relationship between two or more things, and it is not clear to what the energy is correlated.

Claim 9 does not appear to limit the apparatus of claim 1. Claim 1 recites "a source adapted to apply mechanical energy into the conduit," whereas claim 9 is directed to applying energy to the fitting body and not into the conduit. At best, claim 9 appears to be directed to the nonelected embodiment of the species of Fig. 7. However, claim 9 does not appear to recite any structural limitation, but rather appears to recite a method step of applying energy to the fitting body. A single claim which claims both an apparatus and the method steps of using the apparatus is indefinite under 35 U.S.C. 112, second paragraph. *Ex parte Lyell*, 17 USPQ2d 1548 (BPAI 1990).

Regarding claim 14, it is not clear that base 20 is “adapted to align with a surface of the fitting.” Such terminology does not appear in the specification. If anything, the base 20 appears to be adapted to align with a surface of the conduit and not the fitting. See page 10, lines 23-24.

Regarding claim 18, it is not clear how source 12 is “adapted to be positioned relative to a reference position of the fitting.”

Regarding claim 43, it is not clear what is meant by “at least one conduit gripping device.” Such terminology does not appear in the specification. It would appear that applicant is referring to a ferrule. However, applicant describes the function of a ferrule as providing a fluid tight coupling between the tube end and the fitting body and not as “gripping” the conduit. See page 4, lines 21-23.

Regarding claim 46, note the above remark regarding claim 7.

Claim 48 does not appear to limit the apparatus of claim 43. Claim 43 recites “a source adapted to apply mechanical energy into the conduit,” whereas claim 48 is directed to applying energy to the first component of the fitting and not into the conduit.

Regarding claim 53, note the above remarks regarding claim 14.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claims 1, 5-7, 9-22, 25, 43-46, 48-61, 64 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slack (4,870,866) in view of Varrin (5,280,967).

Slack discloses a tool for evaluating a fitting assembly having a conduit 8 assembled at one end to a fitting 6 comprising an ultrasonic probe 2 and an analyzer 3 that determines contact pressure between an end portion of the conduit and the fitting as a function of reflected energy. Slack further teaches that the acoustic pulse may be directed at either solid interface (column 2, lines 63-65), i.e., that the ultrasonic probe may apply energy into either the fitting 6 or the conduit 8. Accordingly, the only difference between the claimed invention and the prior art consists in using the tool of Slack on a particular type of fitting 6, namely, a fitting comprising a body, a nut and a ferrule. A fitting comprising a body, nut and ferrule are known in the art, as taught by Varrin, and it is known in the art to indicate the optimum tightness condition of such a fitting, as also taught by Varrin. Accordingly, it would have been obvious to one of ordinary skill in the art to use the tool of Slack to measure contact pressure between mating solid parts of a fitting comprising a body, nut and ferrule.

Regarding claim 5, Slack indicates that a separate receiver can be used (column 5, lines 39-44).

Regarding claim 6, Slack teaches using shear waves (column 4, lines 61-63).

Regarding claim 7, the received energy is correlated with the contact pressure (column 3, lines 36-41).

Regarding claim 9, Slack teaches applying the acoustic pulse to the fitting 6 in Fig. 1.

Regarding claim 10, the probe 2 is positioned at an inclined angle in the positioning jig 9.

Regarding claim 11, Slack determines contact pressure between an end portion of the conduit and a shoulder of the fitting.

Regarding claim 12, Slack applies energy at several circumferential positions (column 5-8).

Regarding claim 13, it would have been obvious to one of ordinary skill in the art that contact pressure corresponds to axial position of the end of the conduit.

Regarding claims 14 and 15, it is well known in the art to conform a transducer base to an outer surface of a conduit in order to provide acoustic contact.

Regarding claims 16 and 17, it is well known in the art to use low attenuation plastic and acrylic resin as acoustic couplants.

Regarding claim 18, Slack applies energy at several circumferential positions (column 5-8), one of which may be taken to be “a reference position of the fitting.”

Regarding claim 19, it would have been obvious to one of ordinary skill in the art that contact pressure corresponds to axial position of the end of the conduit.

Regarding claim 22, contact pressure comprises a load between the conduit and a fitting body surface.

Regarding claims 43-46, 48-61, 64 and 65, note the above remarks.

9. Claims 8 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slack in view of Varrin as applied to claims 7 and 46 above, and further in view of Sadok et al. (6,397,679).

The only further difference between the claimed invention and the prior art consists in using a Morlet wavelet. Sadok et al. teaches the use of a Morlet wavelet to discriminate among ultrasonic echoes reflected from various objects in a tank. Note column 6, lines 31-35. It would have been obvious to use a Morlet wavelet in order to discriminate among ultrasonic echoes reflected from various objects in a fitting.

10. Claims 23 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Seymour et al. (6,438,814) uses ultrasonic waves 34 to determine the amount of deformation of the shoulder formation 24 of a fitting.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John E. Chapman whose telephone number is (571) 272-2191. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
John E Chapman  
Primary Examiner  
Art Unit 2856